Kansas Department of Health and Environment Bureau of Waste Management 1000 SW Jackson, Suite 320, Topeka, Kansas 66612-1366

Disposal Options For Large Quantities of Dead Animals

Technical Guidance Document SW 01-01



Large numbers of livestock may be killed during a disease outbreak or a natural disaster such as a snow storm. These mortalities require special disposal procedures to prevent creating hazards to human health, animal health, and the environment. This guidance document outlines acceptable practices for the disposal of large quantities of dead animals (six or more animal units as defined in K.S.A. 65-171d). Disposal options for small quantities of dead animals are described in Technical Guidance Document SW 94-01.

The Bureau of Waste Management (BWM), along with the Livestock Commissioner-Animal Health Department (785-296-2326), will provide advice on disposal options which meet the requirements of K.S.A. 47-1219 and K.S.A. 65-3407c(a)(5).

The statutory options for disposal, in order of preference, are:

- 1. Rendering;
- 2. Disposal at a municipal solid waste landfill;
- 3. Burial on-site;
- 4. Composting; and
- 5. Incineration or open burning.

The table on the back indicates environmental, cultural, and safety factors that may be affected by the different disposal options. Each of these should be considered when determining which disposal method is the best option.

Rendering is the preferred option of disposal for large quantities of dead animals; however, very large quantities of animals or animals with an infectious disease may nullify this option.

Disposal at a permitted municipal solid waste landfill is the second most desirable option. These facilities are constructed to safely dispose of organic wastes. However, very large quantities and transport distances may make this option impractical.

Burial on-site. An authorization may be obtained from KDHE to dispose of whole unprocessed livestock at a location near where the animals died if the deaths were the result of a natural disaster or if the carcasses present an emergency situation

(K.S.A. 65-3407c(a)(5)).

A request for disposal must be submitted to BWM on a *Disposal of Solid Waste Without a Permit* (Disposal of Whole Unprocessed Livestock Carcasses) authorization application which includes written approval from the landowner and from the local government or zoning authority.

The following guidelines should be followed when burying animals on-site:

- 1. With the help of KDHE District Office staff, select a site that will be protective of ground and surface water.
- 2. Bury animals within 48 hours unless otherwise authorized.
- 3. Add quick or slaked lime, if necessary, to control odors and thus discourage scavenging.
- 4. Cover animals with a minimum of three feet of soil.

Composting may be an option for large numbers of small animals. However, diseased animals or large quantities of large animals may not be ideal for composting. Contact BWM for guidance.

Incineration or open burning may be required by the Livestock Commissioner to prevent disease transmission. The Bureau of Air&Radiation (785-296-1593) of KDHE must be consulted for approval of location and methods of combustion, which may include an air curtain destructor or open burning.

The following table, modified from USDA Animal and Plant Health Inspection Service information, indicates the areas of concern that should be considered when determining which disposal method is the best option. To use this table, decide on the disposal method that is most suited to your situation, then look down the column under the chosen disposal method at the "Xs", "Rs", and "Ks" to determine which areas of concern apply to that disposal method. You will need to be sure that all areas marked have been considered and appropriate controls are in place to minimize the impacts of the chosen disposal methods on these areas of concern.

Area of Concern	Method			
	Burial	Incineration or Open Burning	Rendering	Composting
Surface Water	X, K		X, R	X, K
Groundwater	X, K			X, K
Air	X	X, R, K	X, R	X
Wildlife	X			
Public Safety and Worker Health	X	X	X	
Solid Waste	X, K	X		X, K
Vegetation	X	X		
Cultural and Historical	X	X		
Utilities	X	X		
Climate	X	X		X

- X- denotes applicability
- R- denotes all Federal, State, and local discharge permit requirements must be satisfied in order to mitigate or eliminate any impacts
- K- denotes KDHE has specific regulations which must be met

Kansas Department of Health and Environment District Offices:

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Southeast District Office 1500 West 7th Chanute, Kansas 66720 (620) 431-2390

Southwest District Office 302 West McArtor Road Dodge City, Kansas 67801-6098 (620) 225-0596

For additional information regarding proper management of solid waste, you may contact the Bureau of Waste Management at (785) 296-1600 or the address at the top of this document or visit the Bureau's website at www.kdhe.state.ks.us/waste.